

# **[CONTACTLESS CHANNEL WRITE/ERASE FLASH MEMORY CELL AND ITS FABRICATION METHOD]**

## **Abstract of Disclosure**

A contactless channel write/erase flash memory cell structure and its fabricating method for increasing the level of integration is disclosed. The present invention utilizes a buried diffusion method to form an  $N^{+}$ -doped region that acts as a drain of the flash memory cell and a P-doped region underneath an oxide layer. The  $N^{+}$ -doped region and the P-doped region extend to in a bit line direction and a metal contact is used to connect the two away from any of the  $N^{+}$ -doped region and the P-doped region of the flash memory cell for decreasing the numbers of the metal contacts in the flash memory cell and reducing dimensions of the device.

## Figures